

NOVELTIES IN THE MYRSINACEAE FROM THE VENEZUELAN GUAYANA

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ABSTRACT

Preparation of a taxonomic treatment of the Myrsinaceae for the *Flora of the Venezuelan Guayana* project resulted in the discovery of a new species, *Cybianthus liesneri* Pipoly & Ricketson, which is described, illustrated, and its systematic relationships discussed. A key to distinguish *Cybianthus liesneri* from the other species of *Cybianthus* subgenus *Weigeltia* of the Venezuelan Guayana is provided. In addition, *Paratibesia viridis* Lundell is found to be a member of the genus *Stylogyne*. The combination, *Stylogyne viridis* (Lundell) Ricketson & Pipoly is proposed, the species is newly illustrated and an updated description is provided. In addition, a key to the species of *Stylogyne* found in the Venezuelan Guayana is presented.

RESUMEN

Estudios para preparar un tratamiento taxonómico de la familia Myrsinaceae para la *Flora of the Venezuelan Guayana* dieron como resultado el descubrimiento de una especie nueva para la ciencia. Se describe, se ilustra y se discute el parentesco de la nueva especie, *Cybianthus liesneri* Pipoly & Ricketson. Se ofrece una clave taxonómica para separar *Cybianthus liesneri* de las otras especies pertenecientes al género *Cybianthus* subg. *Weigeltia* dentro de la Guayana venezolana. Además, se encontró que *Paratibesia viridis* Lundell se ubica mejor dentro del género *Stylogyne*. Se propone la nueva combinación, *Stylogyne viridis* (Lundell) Ricketson & Pipoly, se ilustra la especie, y se discute su parentesco. Se aporta una clave para distinguir las especies del género *Stylogyne* en la Guayana venezolana.

NOTES ON CYBIANTHUS

Of the 56 species known to occur in the area covered by the *Flora of the Venezuelan Guayana* (Steyermark et al. 1995), 42 taxa, comprising 39 species, belong to the genus *Cybianthus* Mart. In studying the specimens collected from the region, we noted that one represented an entity we had not seen previously. Several characters, including the abruptly basally swollen petioles, pinnate panicles, stems with appressed brownish furfuraceous lepidote scales and prominently long black punctate-lineations, and 4-lobed calyx

placed the new species in *Cybianthus* subgenus *Weigeltia* (A. DC.) G. Agost., a group consisting of approximately 46 species in South America and the Caribbean (Pipoly 1998). In the Guayana of Venezuela, subgenus *Weigeltia* is represented by six species, separable in the following key.

KEY TO *CYBIANTHUS* SUBGENUS *WEIGELTIA*
IN THE VENEZUELAN GUAYANA

1. Leaves narrowly oblong to oblanceolate (3.1–)4–5(–7.5) cm wide.
 2. Petiole subterete; leaf blades not black punctate-lineate below; staminate pedicels ca. 1 mm long; pistillate pedicels 0.5–0.6 mm long. *C. longifolius* Miq.
 2. Petiole canaliculate to base; leaf blades conspicuously black punctate-lineate below; staminate pedicels ca. 1.5–2.5 mm long; pistillate pedicels (0.7) 1.0–1.5 mm long *C. surinamensis* (Spreng.) G. Agost.
1. Leaves elliptic to obovate, (6.3–)8–10(–14) cm wide.
 3. Leaves membranaceous, prominently black punctate or conspicuously black punctate-lineate below, base acuminate or tapering gradually, decurrent on petiole to base; petiole deeply canaliculate; pistillate pedicels thin, 2–2.5 mm long.
 4. Branchlets terete, not brittle, not semi-succulent, with numerous, minute, appressed reddish lepidote scales, inconspicuously black punctate-lineate; leaves conspicuously black punctate-lineate below, the quaternary veins not visible; petioles 3–4.5 cm long, not decurrent. *C. multicostatus* Miq.
 4. Branchlets angulate, brittle, semi-succulent, with scattered, minute, appressed, brownish lepidote scales, densely and prominently long black punctate-lineate, leaves densely and prominently black punctate below, the punctations one per areole, formed by prominently raised quaternary veins; petioles 1.5–2 cm long, decurrent on the branchlet onto rounded ridges on branchlet. *C. liesneri* Pipoly & Ricketson, sp. nov.
 3. Leaves chartaceous to subcoriaceous or thickly coriaceous to cartilaginous, obscurely pellucid punctate below, base acute, barely decurrent on petiole; petiole subterete with a narrow, shallow channel barely discernible above; pistillate pedicels obsolete to thicker than long and subobsolete.
 5. Branchlets angulate, with few, rounded angles below decurrent petiole bases; petioles 1.5–7 cm long, decurrent onto rounded angles on branchlets; leaves thickly coriaceous to cartilaginous; pistillate calyx lobes deltate, apically acute; staminate calyx lobes linear-lanceolate, apically narrowly acute to attenuate. *C. grandifolius* (Mez) G. Agost.
 5. Branchlets terete, with numerous, raised narrow longitudinal ridges nor corresponding to petiole bases; petioles (1.7–)2–3 cm long, not decurrent onto branchlet; leaves chartaceous to subcoriaceous; pistillate calyx lobes very widely ovate to oblate, apically subacute to obtuse; staminate calyx lobes ovate, apically obtuse with a small acumen at tip. *C. potiaei* (Mez) G. Agost.

The new species is described herewith.

Cybianthus liesneri Pipoly & Ricketson, sp. nov. (Fig. 1). TYPE: VENEZUELA. AMAZONAS: Departamento Río Negro; Cerro de la Neblina Camp V; valley N

of base of Pico Cardona, 00° 49' N, 66° 00' W, 1,250 m, 21–24 Mar 1984 (fr), *R. Liesner & B. Stannard 16866* (HOLOTYPE: VEN; ISOTYPES: K, MO).

Quoad folia membranacea, subter manifeste atro-punctata arque atro-punctato-lineata, ad bases gradate decrescens, ad bases petiolaris decurrentes, petiolos profunde canaliculatos, pedicellos pistillatos graciles, 2–2.5 mm longos, *C. multicostratam* valde arcte affinis, sed ab ea ramulis angulatis (non teretibus), fragilibus (nec flexibilibus), semi-succulentis (nec non-succulentis), sparse deminuteque adprese brunei (nec rubigni) squamis lepidotis indutis, necnon dense arque prominente (nec inconspicue) longo-atro-punctato-lineatis, foliis subter dense manifesteque atro-punctatis cum punctis uno in quoque areola (non lineatis), denique petiolis 1.5–2 (non 3–4.5) mm longis, ad ramulis decurrentis (nec non-decurrentis) statim distinguitur.

Shrub or small tree to 4 m tall. Branchlets angulate, brittle, semisucculent, 7–10 mm diam., apically with scattered, minute, appressed brownish lepidote scales, densely and prominently long-black punctate-lineate, glabrescent. *Leaves* pseudoverticillate; blades membranaceous, obovate, 30–43 cm long, 10–14 cm wide, apically acuminate, the acumen 8–10 mm long, gradually tapering to a cuneate base, decurrent to base of petiole; midrib slightly raised above, prominently raised below, the principal secondary veins arcuate from the midrib toward apex, prominulous above, prominently raised below, 13–19 pairs, the tertiary veins prominulous below, perpendicular to the secondary ones, prominently black punctate below, the punctations no more than one per each areole formed by the prominently raised quaternary venation, with scattered conspicuous (but not prominently raised) black punctate-lineations; the margin entire, glabrous; petioles deeply canaliculate, 1.5–2 cm long, decurrent onto the rounded ridges of the branchlet, glabrous. *Staminate inflorescence*: unknown. *Pistillate inflorescence* a columnar, pinnate panicle 10–19 cm long, to 6 cm wide, the peduncle, rachis and pedicels densely rufous papillate; inflorescence bract unknown; peduncle 1–2 cm long; pedicels cylindrical, thin, 2–2.5 mm long; floral bracts unknown. *Pistillate flowers* unknown; fruiting calyx cotyliform, spreading, 0.8–1 mm long, the tube ca. 0.1 mm long, the lobes ovate, 0.7–0.9 mm long, 0.5–0.7 mm wide, apex obtuse to rounded, bearing 3–5 prominently raised black punctations medially, the margins irregular, erose to erose-dentate, glabrous. *Fruit* (immature) 2.5–3.5 mm diam., scattered translucent glandular-lepidote, the style persistent, the stigma subcapitate, 4-lobed.

Distribution and ecology.—Known only from the type, growing at 1,200–1,300 m elevation, *Cybianthus liesneri* occurs in premontane wet forest, dominated by *Iriartea* (Arecaceae) and several Burseraceae species.

Etymology.—This species is dedicated to Ronald L. Liesner, of the Missouri Botanical Garden, prodigious collector of Amazonian plants.

PARATYPES. VENEZUELA. Amazonas: Departamento Río Negro, trail S from Cerro Neblina Camp V, 00° 49' N, 66° 00' W, 1,200–1,300 m, 12 Apr 1984 (fr), *A. Gentry & B. Stein 46352* (MO 2-sheets, VEN n.v.).

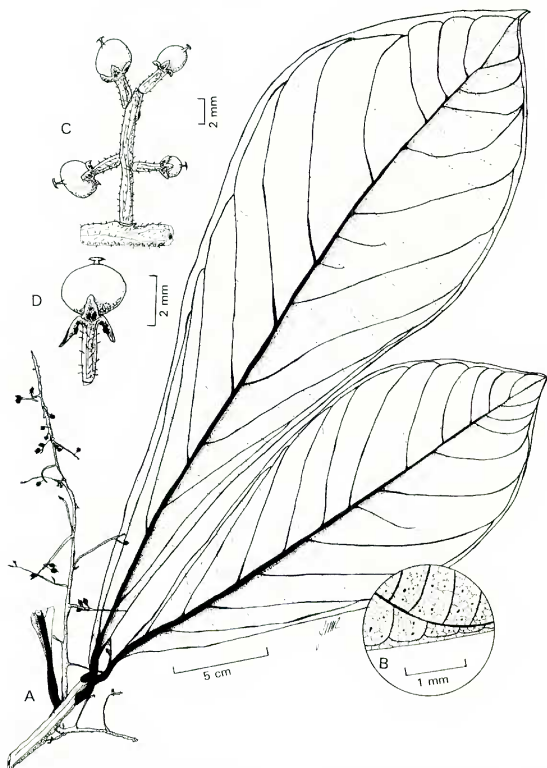


FIG. 1. *Cybianthus liesneri* Pipoly & Ricketson. A. Flowering branchlet, habit. B. close up of abaxial leaf surface, showing prominent black punctations, one per areole. C. Inflorescence branch close up, showing dense papillae. D. Close up of fruit, calyx and pedicel, showing the ovate calyx lobes, persistent subcapitate, 4-lobed stigma. A-D, drawn from type.

The following characters: chartaceous to subcoriaceous leaf blades that are obscurely pellucid punctate below with acute bases; subterete petiole with a narrow, shallow channel barely discernible above, and the flowers that are either sessile or with short, stout pedicels, all indicate that *C. liesneri* is most closely related to *C. multicosatus*. However, the angulate, brittle, semi-succulent branchlets, with scattered minute, appressed, brownish lepidote scales, and dense and prominent black punctate-lineations, leaves black punctate below with one punctation per areole, shorter petioles decurrent on the rounded ridges of the branchlet, all serve to distinguish *C. liesneri* from *C. multicosatus*.

NOTES ON *STYLOGYNE*

While examining *Parathesis viridis* Lundell, described from the Guayana region, we suspected that it was, in fact, a member of the genus *Stylogyne* A. DC. The species was previously known only from fruit and some poorly preserved flower buds. A new collection provided us with new characters, such as the contorted corolla, linear-lanceolate anthers with sagittate bases and longitudinal dehiscence, long style with punctiform stigma, leaving no doubt that *Parathesis viridis* should be transferred to *Stylogyne*. Therefore, we propose the new combination here and include the new data gleaned from the second collection known for the species. A key to the species of the genus in the Venezuelan Guayana is provided first, below.

KEY TO SPECIES OF *STYLOGYNE* IN THE VENEZUELAN GUAYANA

1. Inflorescence, peduncle, rachis and/or pedicels sparsely to densely papillose, of simple to few-celled papillae, often obscure.
 2. Anthers narrowly lanceolate, reddish-concolorous when dried; inflorescence opaque; ovary minutely rufous puberulent apically. *S. viridis* (Lundell) Ricketson & Pipoly, comb. nov.
 2. Anthers oblong, whitish-yellow when dried; inflorescence translucent pink or pinkish-red; ovary glabrous apically *S. orinocensis* (Kunth) Mez
1. Inflorescence, peduncle, rachis and/or pedicels glabrous.
 3. Leaf margins conspicuously crenate; growing in gallery forests on slopes near streams, ca. 500 m elevation *S. lasseri* (Lundell) Pipoly
 3. Leaf margins entire, occasionally obscurely crenate; growing in wet or swampy lowland forests, 30–450(–800) m elevation.
 4. Mature fruits 10–14 mm diam., depressed-globose; leaf blades chartaceous to coriaceous, usually nitid above. *S. atra* Mez
 4. Mature fruits 4–7(–9) mm diam., globose; leaf blades membranaceous, usually dull above *S. micrantha* (Kunth) Mez

The transfer and new description is included herewith.

Stylogyne viridis (Lundell) Ricketson & Pipoly, comb. nov. (Fig. 2). *Parathesis viridis* Lundell, Phytologia 56:26. 1984. TYPE. VENEZUELA. AMAZONAS: 0–1 km S of San Carlos de Río Negro, 01° 51' N, 67° 03' W, 120 m, 4 Feb 1980 (fr), R. Liesner 9046 (HOLOTYPE: MO; ISOTYPE: VEN n.v.).

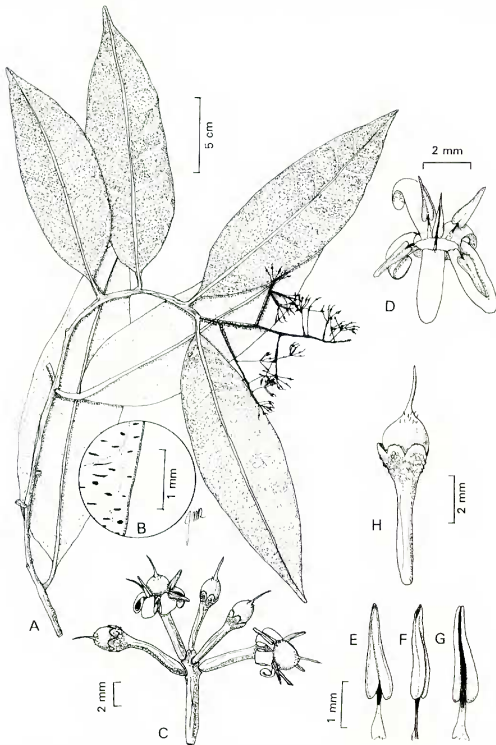


FIG. 2. *Stylogyne viridis* (Lundell) Rickerson & Pipoly. A. Flowering branchlet habit, showing wings, and leaf punctations. B. Close up of abaxial leaf surface, showing punctations and punctate-lineations. C. Corymb detail, showing reflexed corollas and persistent styles. D. Corolla and androecium, separated from calyx and developing fruit. E. Stamen, adaxial view, showing hastate base and longitudinal slits. F. Stamen, lateral view. G. Stamen, abaxial view, showing darkened connective. H. Pedicel, calyx and young fruit, showing minute rufous puberulent ovary summit. A-H, drawn from R. Liesner 4182.

Tree to 4 m tall. *Branchlets* 2–2.5 mm diam., angulate, with ridges forming “wings” ca. 3 mm high, spiralled around the stem to follow the margins of the decurrent petiole bases, glabrous. *Leaves* alternate, chartaceous, lanceolate to elliptic, 14–19 cm long, 4.0–4.7 cm wide, apically long acuminate-attenuate, the acumen 1–1.8 cm long, basally acute to obtuse, midrib prominulous apically, then canaliculate basally above, prominently raised below, the secondary veins 20–24 pairs, prominulous above and below, connected by a submarginal looping vein ca. 4 mm from margin, with periodic secondary veins extending to a second minor submarginal connecting vein 1 mm from margin, minutely scrobiculate above, densely and prominently orange punctate and punctate-lineate below, the margins flat, entire, decurrent to base of petiole; petiole marginate, roughly trigonal in transverse section, marginate, 6–9 mm long, glabrous. *Bisexual inflorescence* a terminal, pyramidal, bipinnate panicle 5.5–8 cm long, 6–7.5 cm wide; inflorescence bract unknown; peduncle 1.1–1.5 cm long; floral bracts coriaceous, minute, linear, 0.4–0.6 mm long, 0.1–0.2 mm wide, apex rounded, densely orange punctate, the margin glandular-ciliate, early caducous; pedicels 4–6 mm long, minutely glandular-papillate. *Bisexual flowers* chartaceous: calyx campanulate, the sepals free, ovate, 1.1–1.3 mm long, 0.7–0.9 mm wide, apex rounded to obtuse, the margins irregular, somewhat erose apically, very sparsely and minutely glandular-ciliate; corolla chartaceous, very openly rotate, 4.4–5 mm long, the tube 0.9–1.1 mm the lobes reflexed distally and rolled at anthesis, oblong, 3.5–3.9 mm long, 1.3–1.5 mm wide, apex very broadly rounded to a short acumen, densely and prominently orange punctate and punctate-lineate, the margin entire, opaque, glabrous; stamens 3.3–3.6 mm long, the filaments flat, 1.8–2 mm long, adnate to the corolla tube 0.9–1.1 mm, the apically free portion ca. 0.9 mm long, the anthers concolorous, linear-lanceolate, 2–2.3 mm long, 0.3–0.5 mm wide basally, apically attenuate, basally deeply sagittate, dehiscent by wide longitudinal slits, the connective dark brown; pistil obturbinate, 4.7–4.9 mm long, the ovary obovoid, 2–2.2 mm long, 1.5–1.7 mm diam. toward apex, narrower below, apically rufous puberulent, the style thin, 2.6–2.8 mm long, the stigma punctiform. *Fruit* unknown.

Distribution.—Endemic along the Río Negro, south of San Carlos de Río Negro. It grows at 120 m in elevation. No collections are known from the Colombian side of the river, however it should be expected.

Ecology and conservation status.—Seasonally flooded primary forests and secondary areas. Because of its restricted distribution, it should be considered threatened.

Etymology.—The specific epithet comes from the latin meaning “green,” presumably because of the leaf color.

Specimens examined. VENEZUELA. AMAZONAS: S of airstrip of San Carlos de Río Negro and along river for 2 km, 01° 55' N, 67° 05' W, 120 m, 4 Dec 1977 (fl, fr), R. Liesner 4182 (MO).

The minute glandular-papillae of the pedicels makes it most easy to confuse *Stylogyne viridis* with *S. orinocensis*. However, the concolorous, linear-lanceolate anthers, opaque inflorescence rachis and ovary minutely glandular-puberulent apically all easily distinguish *Stylogyne viridis* from *S. orinocensis*.

ACKNOWLEDGMENTS

This paper is a result of the Flora of the Venezuelan Guayana project at the Missouri Botanical Garden, under the auspices of the Julian A. Steyermark Fund and NSF grants BSR-8717303, BSR 9045532, and BSR 9201044. The illustrations were prepared by Jon Ricketson.

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